

IN THE CLAIMS

This listing of the claims replaces all prior listings:

1. (Currently Amended) A cathode material, comprising:
a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al),
wherein,
a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and
the complex oxide is represented by a chemical formula $\text{Li}_a\text{Mn}_b\text{Cr}_c\text{Al}_{1-b-c}\text{O}_d$
 $\text{Li}_a\text{Mn}_b\text{Cr}_c\text{M}_{1-b-c}\text{O}_d$ (where a is one of 1.4, 1.5, 1.55 and 1.6 and the values of b , c , and d are within a range the ranges of $1.0 < a < 1.6$, $0.5 < b+c < 1$, and $1.8 < d < 2.5$ and M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum).
2. (Cancelled)
3. (Currently Amended) A cathode material, comprising:
a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al),
wherein,
a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and ~~wherein~~
the complex oxide is represented by a chemical formula $\text{Li}_{1+e}(\text{Mn}_f\text{Cr}_g\text{M}_{1-f-g})_{1-e}\text{O}_h$
(where M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum, and e is equal to 0.4 and the values of f , g and h are within a range the ranges of $0 < e < 0.4$, $0.2 < f < 0.5$, $0.3 < g < 1$, $f + g < 1$ and $1.8 < h < 2.5$).
4. (Currently Amended) A method of manufacturing a cathode material, the cathode material comprising a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and

aluminum (Al), a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and the complex oxide is represented by a chemical formula $\text{Li}_a \text{Mn}_b \text{Cr}_c \text{M}_{1-b-c} \text{O}_d$ (where a is one of 1.4, 1.5, 1.55 and 1.6 and the values of b, c, and d are within the ranges of $0.5 < b+c < 1$, $1.8 < d < 2.5$ and M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum), the method comprising the step of:

mixing materials with ethanol ~~or water~~ as a dispersion medium to synthesize the complex oxide.

5. (Currently Amended) A battery, comprising:

a cathode;

an anode; and

an electrolyte,

wherein,

the cathode comprises a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al), and a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and

the complex oxide is represented by a chemical formula ~~$\text{Li}_a \text{Mn}_b \text{Cr}_c \text{Al}_{1-b-c} \text{O}_d$~~
 $\text{Li}_a \text{Mn}_b \text{Cr}_c \text{M}_{1-b-c} \text{O}_d$ (where a is one of 1.4, 1.5, 1.55 and 1.6 and the values of [[a,]] b, c, and d are within a range the ranges of $1.0 < a < 1.6$, $0.5 < b+c < 1$, and $1.8 < d < 2.5$ and M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum).

6. (Cancelled)

7. (Currently Amended) A battery, comprising:

a cathode;

an anode; and

an electrolyte,

wherein,

the cathode comprises a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al), and a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and ~~wherein~~

the complex oxide is represented by a chemical formula $\text{Li}_{1+e} (\text{Mn}_f \text{Cr}_g \text{M}_{1-f-g})_{1-e} \text{O}_h$ (where M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum, and e is equal to 0.4 and the values of $[[e,]]$ f, g and h are within a range the ranges of $0 < e < 0.4$, $0.2 < f < 0.5$, $0.3 < g < 1$, $f + g < 1$ and $1.8 < h < 2.5$).

8. (New) A method of manufacturing a cathode material, the cathode material comprising a complex oxide including lithium (Li), manganese (Mn), chromium (Cr) and at least one kind selected from the group consisting of titanium (Ti), magnesium (Mg) and aluminum (Al), and a composition ratio of lithium to the total of manganese, chromium, titanium, magnesium and aluminum in the complex oxide is larger than 1 in molar ratio, and the complex oxide is represented by a chemical formula $\text{Li}_{1+e} (\text{Mn}_f \text{Cr}_g \text{M}_{1-f-g})_{1-e} \text{O}_h$ (where M is at least one kind of element selected from the group consisting of titanium, magnesium and aluminum, and e is equal to 0.4 and the values of f, g and h are within the ranges of $0.2 < f < 0.5$, $0.3 < g < 1$, $f + g < 1$ and $1.8 < h < 2.5$), the method comprising the step of:

mixing materials with ethanol as a dispersion medium to synthesize the complex oxide.